We claim:

1. A two-part composition which can be mixed and used as a wood adhesive comprising:

(a) a reactive component comprising furfuryl alcohol monomer and a by-product obtained from a chemical pulping process; and

(b) a catalyst component comprising zinc chloride, iron (III) chloride hexahydrate and maleic anhydride.

2. A composition according to claim 1 wherein the by-product is a polymer mixture comprising lignin and a liquid solvent which is a member selected from the group consisting of water, an organic solvent and mixtures thereof.

3. A composition according to claim 1 wherein the catalyst component contains nut shell flour and methanol.

4. A composition according to claim 2 wherein the lignin is present in an amount of about 10% to about 30% by weight.

5. A composition according to claim 4 wherein the lignin is present in an amount of about 22% by weight.

6. A composition according to claim 1 wherein the furfuryl alcohol is present in an amount of about 30% to about 50% by weight.

7. A composition according to claim 6 wherein the furfuryl alcohol is present in an amount of about 43% by weight.

8. A composition according to claim 1 wherein the maleic anhydride is present in an

amount of about 5% to about 15% by weight.

9. A composition according to claim 8 wherein the maleic anhydride is present in an amount of about 10% by weight.

10. A composition according to claim 1 wherein the zinc chloride is present in an amount of about 0.5% to about 5% by weight.

11. A composition according to claim 10 wherein the zinc chloride is present in an amount of about 2% by weight.

12. A composition according to claim 1 wherein the iron (III) chloride hexahydrate is present in an amount of about 0.5% to about 5% by weight.

13. A composition according to claim 12 wherein the iron (III) chloride hexahydrate is present in an amount of about 2% by weight.

14. A composition according to claim 3 wherein the nut shell flour is present in an amount of about 5% to about 20% by weight.

15. A composition according to claim 14 wherein the nut shell flour is present in an amount of about 11% by weight.

16. A process for bonding wooden substrates comprising the steps of:

(a) obtaining two or more wooden substrates;

(b) coating at least one of the wooden substrates with a two-part adhesive formulation comprising:

1. a reactive component comprising furfuryl alcohol monomer and a by-product obtained from a chemical pulping process; and

2. a catalyst component comprising zinc chloride, iron (III) chloride

hexahydrate and maleic anhydride;

(c) contacting the at least one coated substrate with a second wooden substrate to obtain a bondable wooden structure; and

(d) heating the bondable wooden structure, optionally under pressure, to obtain a bonded wooden structure.

17. A process according to claim 16 wherein the by-product is a polymer mixture comprising lignin and a liquid solvent which is a member selected from the group consisting of water, an organic solvent and mixtures thereof.

18. A process according to claim16 wherein step (d) is performed in a hot press under suitable conditions of temperature and pressure.

19. A process according to claim 17 wherein the lignin is present in an amount of about 10% to about 30% by weight.

20. A process according to claim 19 wherein the lignin is present in an amount of about 22% by weight.

21. A process according to claim 16 wherein the furfural alcohol is present in an amount of about 30% to about 50% by weight.

22. A process according to claim 21 wherein the furfuryl alcohol is present in an amount of about 43% by weight.

23. A process according to claim 16 wherein the maleic anhydride is present in an amount of about 5% to about 15% by weight.

24. A process according to claim 23 wherein the maleic anhydride is present in an amount of about 10% by weight.

25. A process according to claim 16 wherein the zinc chloride is present in an amount of about 0.5% to about 5% by weight.

26. A process according to claim 25 wherein the zinc chloride is present in an amount of about 2% by weight.

27. A process according to claim 16 wherein the iron (III) chloride hexahydrate is present in an amount of about 0.5% to about 5% by weight.

28. A process according to claim 27 wherein the iron (III) chloride hexahydrate is present in an amount of about 2% by weight.

29. A process according to claim 16 wherein the catalyst component contains nut shell flour and methanol.

30. A process according to claim 29 wherein the nut shell flour is present in an amount of about 5% to about 20% by weight.

31. A process according to claim 30 wherein the nut shell flour is present in an amount of about 11% by weight.

32. A process according to claim 16 wherein the wooden substrate is a member selected from the group consisting of lumber, veneer, plywood, wood wafers and wood particles **and wood fibres.**

33. A bonded wooden structure made according to the process of claim 16.

34. In the process of preparing composite articles wherein a binder is employed, the improvement consisting of employing as the binder a composition comprising furfuryl alcohol monomer, a by-product obtained from a chemical pulping process, zinc chloride, iron (III) chloride hexahydrate and maleic anhydride.

35. In the process of preparing glass fiber reinforced articles wherein a binder is employed, the improvement consisting of employing as the binder a composition comprising furfuryl alcohol monomer, a by-product obtained from a chemical pulping process, zinc chloride, iron (III) chloride hexahydrate and maleic anhydride.